

Biography : Dr. P.J.Du Toit

Name : Du Toit, Petrus Johann.

Date and place of birth : 16 March 1888, Somerset Strand, South Africa.

Date and place of death : 13 November 1967, Pretoria, South Africa.

Main Functions : Director of Veterinary Services, Union of South Africa (1927-1948).
Dean, Faculty of Veterinary Science, University of Pretoria (1927-1948)
President, South African Council of Scientific and Industrial Research
(CSIR) (1951-1952).
President of the Science Council for Africa (CSA) (1951-1960).

Parents names : Mr. Daniel Francois du Toit, farmer and journalist.
Mrs. Margaretha Magdalena du Toit (neé Van Nierop)

Spouse : Dorothy Jakeman

Year of marriage : 1919

Number of children : 4 (three girls, one boy)

Education : Matriculation : Wellington Boys High School, 1904.
B.A. in Zoology : Victoria College (University of Stellenbosch), 1907
D.Phil. in Zoology : University of Zürich, 1912.
Dr.Med.Vet. : University of Berlin, 1916.

Career : 1908-1917: Study and research at the Universities of Halle, Zürich and Berlin which culminated in doctorates in Zoology (Zürich) and in Veterinary Science (Berlin). The latter degree was awarded for research on leukemia in cattle.

1918-1920: In 1918 appointed as senior veterinary researcher in the S.A. Dept. of Agriculture and posted to the Armoedsvlakte Research Station where he joined the famous dr. Arnold Theiler in research on botulism (Iamsiekte) .

1920-1927: In 1920 he was transferred to the Veterinary Research Institute at Onderstepoort and promoted to the rank of Deputy Director. During this period he continued his studies on mineral metabolism in ruminants but also became involved in research on various infectious diseases such as African horsesickness, sheep scab and sweating sickness as well as parasitology, a natural development in view of his zoological background.

1927-1948: In 1927 he succeeded Dr. Theiler as Director of Onderstepoort. During his directorship of 21 years he was involved as co-worker in many of the important scientific advances achieved during this period such as the development of polyvalent horsesickness and bluetongue vaccines, the discovery of *Culicoides* spp. as vectors of these diseases, the development of vaccines against anthrax and botulism, the eradication of the tsetse fly to control nagana and the development of a method for the immunization against heart-water. He also became increasingly involved in regional and international veterinary meetings, *inter alia* the "Imperial Agricultural Research Conference" in London in 1927 which led to the recognition and expansion of the Onderstepoort institute as a centre of veterinary excellence. He organized and was chairman of a Pan-African Veterinary Conference in Pretoria in 1929, reflecting his belief that complete control of stock diseases in Africa was feasible if the control measures developed at Onderstepoort was applied by

all relevant countries – an ideal to which he devoted much of his energy later in his life.

On national level he was also active in scientific organizations, for example as President of the South African Veterinary Association from 1924-1930, Chairman of the S.A. Biological Society in 1927 and President of the S.A. Association for the Advancement of Science in 1932.

1920-1948 : When a Faculty of Veterinary Science was founded at Onderstepoort in 1920 Dr. du Toit was appointed Professor of Infectious Diseases and remained a highly appreciated member of the teaching staff until his retirement in 1948. From 1924-1926 he served as chairman of the Senate of the University of South Africa and from 1927-1948 as Dean of the faculty.

1948-1963 : After his retirement in 1948 he was appointed to the board of the CSIR, serving as Deputy President until 1950 and as President from 1951-1952. In 1949 he presided over an African Regional Scientific Conference in Johannesburg which resulted in the establishment of a non-governmental international Scientific Council for Africa south of the Sahara (CSA) in 1950, which he guided as elected President until 1960. Despite being very successful in promoting regional collaboration, the CSA became a victim of the political developments in Africa and was abolished in 1963.

Contributions : Dr du Toit contributed widely to the development of Veterinary Science, both on a national and international level, as a brilliant scientist, outstanding administrator, highly regarded educationist and respected scientific advisor. Due to his early appointment as Director of the Veterinary Research Institute at Onderstepoort, where he excelled as scientific administrator, his research career was relatively short. However, he strongly promoted the concept of teamwork in research and remained a valued member of many research teams throughout his career. This is amply illustrated by a list of 132 publications on a wide range of subjects, from infectious diseases to mineral deficiencies and toxicoses. Complementing these activities, he played a decisive role in veterinary education as Professor of Infectious Diseases for 28 years and Dean of the Faculty of Veterinary Science for 21 years. After his retirement from the civil service he acted as Scientific advisor in various capacities to the CSIR and other public bodies and played a leading role in promoting regional collaboration within Africa through the establishment of the CSA.

Homages and Distinctions :

1929 : Senior Captain Scott Medal of the S.A. Biological Society.

1939 : South African Medal

1947 : Havenga Prize of the S.A. Akademie vir Wetenskap en Kuns

1965 : Golden Ram Medal of the S.A. Woolboard.

1935-1951 : Honorary memberships of scientific societies in France, the UK and Belgium.

1935-1958 : Honorary doctorates from the Universities of Stellenbosch, Cape Town, Utrecht, Witwatersrand, Rhodes and Glasgow.

Publications

A list of 132 publications has been published in the biographies listed

below. Among these is a standard handbook at its time, written in collaboration with P.Knuth and published in 1921:

Tropenkrankheiten der Haustiere. Leipzig : J.A.Barth XV, 869p.

References:

1. De Kock,G and Robinson, E.M., Dr. P.J.du Toit:: An Appreciation. Onderstepoort Journal of Veterinary Science and Animal Industry, 23 : 9-13 (1948).
2. Kingwill, D.G. and Schonland, B.J.F. , Petrus Johann du Toit 1888-1951. Biographical Memoirs of Fellows of the Royal Society, 15 : 246-266 (1969).